

IN THE CLAIMS

Please amend the claims as follows:

- 1-4. (Canceled)
5. (Currently Amended) ~~The method of claim 4~~ A method comprising:
receiving a first signal including at least one known symbol;
estimating a DC level of the first signal;
performing equalization on the first signal to form at least one estimated symbol;
remodulating the at least one estimated symbol to form a second signal;
re-estimating the DC level by comparing the first signal and the second signal;
calculating an initial DC estimation error by comparing estimates of the DC level of the
first signal and re-estimates of the DC level;
weighting the at least one estimated symbol, wherein weighting comprises reducing a
weight when the initial DC estimation error is above a threshold[[]]; and
performing channel decoding.
6. (Currently Amended) ~~The method of claim 4~~ A method comprising:
receiving a first signal including at least one known symbol;
estimating a DC level of the first signal;
performing equalization on the first signal to form at least one estimated symbol;
remodulating the at least one estimated symbol to form a second signal;
re-estimating the DC level by comparing the first signal and the second signal;
calculating an initial DC estimation error by comparing estimates of the DC level of the
first signal and re-estimates of the DC level;
weighting the at least one estimated symbol, wherein weighting comprises increasing a
weight when the initial DC estimation error is below a threshold[[]]; and
performing channel decoding.
7. (Canceled)

8. (Currently Amended) The method of claim ~~[[1]]~~ 5 wherein receiving a signal including at least one known symbol comprises receiving a training sequence of symbols.
9. (Currently Amended) The method of claim 8 further comprising repeating ~~the listed~~ a list of actions for a plurality of slots of a global system for mobile communications (GSM) signal.
10. (Currently Amended) A method comprising:
receiving a signal that includes a training sequence of symbols;
estimating a channel parameter from the signal;
performing equalization to produce estimated symbols; ~~and~~
remodulating the estimated symbols and re-estimating the channel parameter~~[[.]]~~;
calculating an initial estimation error by comparing results from estimating the channel parameter and re-estimating the channel parameter; and
weighting the estimated symbols, wherein weighting comprises reducing a weight when the initial estimation error is above a threshold; and
performing channel decoding.
11. (Original) The method of claim 10 wherein estimating a channel parameter comprises estimating a DC level of the signal.
12. (Original) The method of claim 10 wherein estimating a channel parameter comprises estimating a carrier to interference ratio.
13. (Original) The method of claim 10 wherein estimating a channel parameter comprises estimating a noise spectrum.
14. (Canceled)
15. (Currently Amended) The method of claim ~~14~~ 10 further comprising re-performing

equalization when the initial estimation error is above a threshold.

16. (Canceled)

17. (Original) The method of claim 10 wherein receiving a signal comprises receiving a global system for mobile communications (GSM) signal.

18. (Currently Amended) ~~An apparatus including a medium adapted to hold~~ A computer-readable medium having machine-accessible instructions stored thereon that when accessed result in a machine performing:

remodulating a training sequence of symbols from soft decisions;

calculating an estimation error from received signal samples and remodulated signal samples; and

weighting the soft decisions in part by the estimation error~~[[.]], wherein weighting the soft decisions comprises increasing a weight when the estimation error is small.~~

19. (Currently Amended) The ~~apparatus~~ computer-readable medium of claim 18 wherein calculating an estimation error comprises comparing an estimation of a DC level of the received samples to a DC level of remodulated signal samples.

20. (Canceled)

21. (Currently Amended) The ~~apparatus~~ computer-readable medium of claim 18 wherein weighting the soft decisions further comprises decreasing a weight when the estimation error is large.

22. (Currently Amended) An apparatus comprising:

a parameter estimator adapted to estimate a channel parameter;

an equalizer coupled to the parameter estimator, the equalizer adapted to equalize a channel based at least in part on an estimate of the channel parameter; and

a processing element adapted to compare received signal samples and remodulated signal samples, ~~and to normalize soft decisions,~~ calculate an initial estimation error from the received signal samples and the remodulated signal samples, and to weight soft decisions by reducing a weight when the initial estimation error is above a threshold

23. (Canceled)

24. (Original) The apparatus of claim 22 wherein the parameter estimator is adapted to estimate a DC level of a signal.

25. (Original) The apparatus of claim 22 wherein the parameter estimator is adapted to estimate a carrier interference ratio of the signal.

26. (Currently Amended) An electronic system comprising:
an omni-directional antenna;
a parameter estimator to estimate a channel parameter from a signal received from the omni-directional antenna;
an equalizer coupled to the parameter estimator, the equalizer to equalize a channel based at least in part on an estimate of the channel parameter; and
a processing element to compare received signal samples and remodulated signal samples, ~~and to normalize soft decisions,~~ calculate an initial estimation error from the received signal samples and the remodulated signal samples, and to weight soft decisions by reducing a weight when the initial estimation error is above a threshold

27. (Canceled)

28. (Original) The electronic system of claim 26 wherein the parameter estimator is adapted to estimate a DC level of the signal.

29. (Original) The electronic system of claim 26 wherein the parameter estimator is adapted

to estimate a carrier interference ratio of the signal.

30. (New) The method of claim 6 wherein receiving a signal including at least one known symbol comprises receiving a training sequence of symbols.

31. (New) The method of claim 30 further comprising repeating the listed actions for a plurality of slots of a global system for mobile communications (GSM) signal.